

REMARKS

In response to the non-final Official Action currently outstanding with respect to the above-identified application, Applicants respectfully request that the subject application be amended as set forth hereinabove.

Claims 1-16 were pending at the time of the issuance of the currently outstanding Official Action. Claims 15 and 16 have been withdrawn from further consideration as being directed to a non-elected invention. By the foregoing Amendment Applicants have amended Claims 1, 2, 4, 5, 9, 11 and 12. No claims have been added, and no claims have been cancelled. Accordingly, upon the entry of the foregoing amendment, the claims remaining under active prosecution in this application will be Claims 1-14.

The text of the claims along with an appropriate indicator of the status of each is set forth hereinabove as required by the Rules.

In the currently outstanding Official Action, the Examiner has:

1. Acknowledged Applicants' claim for foreign priority under 35 USC 119(a)-(d) or (f), and confirmed the receipt of the required copies of the priority documents by the United States Patent and Trademark Office;
2. Failed to indicate whether or not that the drawings as filed with this Application on 27 November 2001 are acceptable, ***an indication concerning the acceptability of the drawings in response to this communication is respectfully requested;***

3. Provided Applicants with a copy of a Notice of References cited (Form PTO-892) along with copies of each of the newly cited references;
4. Provided Applicants with a copy of the Form PTO-1449 that accompanied their Information Disclosure Statement of 27 November 2001 in the above-identified application duly signed, dated and initialed by the Examiner to confirm his consideration of the art listed therein;
5. Rejected Claims 9 and 12 under 35 USC 112 on the grounds that there is insufficient antecedent basis for the use of the term “the other” as used in those claims in the earlier claims of this application;
6. Rejected claims 1-5, 8, 9, 11 and 12 under 35 USC 102(b) as being anticipated by the Ito reference (JP 2-19194); and
7. Rejected claim 1-14 under 35 USC 102(e) as being anticipated by the Takeda, et al. reference (U.S. PG PUB. 2001/0020992).

No further comment is deemed necessary in these Remarks regarding items 1-4 above.

With respect to item 5, Applicants have reviewed all of the presently pending claims and have found that the term “the other” inadvertently is used therein inconsistently. As is clear from reference to Claim 2 as originally filed, the claims discuss “the insulating film” and “another insulating film”. Accordingly, the claims have now been amended so as to consistently use the terminology “the insulating film” (as defined in Claim 1) and “another insulating film” (as defined in Claim 2).

Applicants respectfully submit that the amendments just described remove the basis for the Examiner's currently outstanding rejection under 35 USC 112. Accordingly, reconsideration and withdrawal of that rejection in view of the foregoing amendments in response to this communication is respectfully requested.

With regard to item 6, Applicants understand the Examiner's rejection to be based upon the fact that the counter electrode 35 shown in the drawings of the Ito reference has tilted surfaces in two directions. It is to be noted, however, that in the present invention the slant orientations of the molecules of the liquid crystal material when a potential is applied across the liquid crystal layer are regulated in **at least two** predetermined directions by virtue of the tilted surfaces of the electrodes depicted in Figure 3. The Ito reference, on the other hand, clearly and definitely teaches that the liquid crystal molecules therein shown have **only one slant direction** when a potential is applied across the liquid crystal layer.

Claim 1 now has been amended so as to clearly reflect this distinction, and Applicants respectfully submit that as so amended Claim 1 (as well as the claims that depend therefrom) cannot be interpreted in a manner such that the Ito reference would anticipate them. The reason for the difference is clear. In the present invention, the electrode/counter electrode configuration is always such that the different volumes of liquid crystal material between the respective tilted surfaces of the electrode and the counter electrode contain essentially distinct and uniformly directed electrical fields and associated lines of electrical force. Hence, the molecules slant differently in one "domain" associated with an electrode relative to the molecules in the another "domain" associated with the electrode.

In the Ito reference, on the other hand, the directions of tilt of all of the surfaces of the various electrodes are the same. Further, the counter electrode is configured such that it defines sections of close to the same size, shape and tilt angle as the opposite individual electrodes respectively aligned with the individual electrodes. In the counter electrode, however, the inwardmost edge of each section is connected to the outwardmost edge of the next adjacent section by a differently tilted connection portion. The fact, however, is that when a potential is applied across the liquid crystal material, the lines of electrical force between the counter electrode and the electrodes, with the minor exception of short portions adjacent to the connection portions, extend between the electrodes and the counter electrode at the angle shown at reference numeral 41 in Figure 3 of the Ito reference. In other words, there is a predominant (essentially single) direction of the electric field between the electrodes and the counter electrode in the Ito reference totally contrary to the domain concept taught by the present invention.

Accordingly, in view of the foregoing amendment and remarks, Applicants respectfully request reconsideration and withdrawal of the currently outstanding rejection under 35 USC 102(b) in response to this communication.

With respect to item 7, Applicants respectfully submit that the Takeda et al reference is inapposite to the present invention. The Takeda et al reference is merely directed to electrodes provided in a grid of singular points. Hence, the alignment of the liquid crystal molecules achieved by Takeda et al arises as a result of the arrangement of the singular point electrodes, not as a result of the tilt of particular sections thereof. Further, the tilts of the molecules in Takeda result from the interaction of singular point electrodes with either an opposing plate-like counter electrode or a plurality of singular point counter electrodes that are offset relative to the singular electrode.

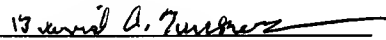
Thus, in a manner quite different from the present invention, Takeda (assuming a normal matrix singular electrode configuration) results in molecules slanting relative to each singular electrode in eight different directions, none of which being determined by a tilted surface of the singular electrode. Hence, Takeda et al is quite different in both construction and operation from the presently claimed invention. As a result, Applicants again respectfully request reconsideration and withdrawal of the Examiner's currently outstanding rejection, and allowance of this application in response to this communication.

For each and all of the foregoing reasons and in light of the foregoing Amendment, Applicants respectfully submit that the Examiner's currently outstanding rejections of the claims of this application should be withdrawn and that this application now is in condition for allowance. A decision so holding and allowing Claims 1-11 as hereinabove amended in response to this communication, therefore, is respectfully requested.

Applicants also believe that additional fees beyond those submitted herewith are not required in connection with the consideration of this response to the currently outstanding Official Action. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit Deposit Account No. **04-1105**, as necessary, for the correct payment of all fees which may be due in connection with the filing and consideration of this communication.

Respectfully submitted,

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